of some kind of siphonaceous alga: the cavities left by their decay were subsequently filled in by sediment under pressure. If the upper surface of *O. antiqua* were more resistant than the lower, this might account for its preservation in relief. The microscopical examination of slate containing *Oldhamia* affords evidence of original and secondary structures which has an important bearing on this question.

MISCELLANEOUS.

Golianthinus (*Sphyrorrhina*) *Wisei*.

By E. A. Heath, M.D., F.L.S.

Since publishing a description of the above, from East Africa (*ante*. p. 397), I have come across a description and figure of a beetle described by Dr. Kraatz from the other side of the continent, and named by him *Fornasinius Hauseri*. This is the nearest ally to my species in form, structure, and markings, from which, however, *G. Wisei* differs by having *three sharp* outer spines on the front tibiæ; the terminal spines in Dr. Kraatz's specimen are very blunt, semitruncate; the first segment of the front tarsus is nearly twice as long as in my species. The markings on the thorax also are quite different: beside the three centre lines, which are somewhat similar in both species, Dr. Kraatz's species has a lateral line reaching from the anterior border to the middle of the thorax, and a line on both outer borders of the thorax from the base of the head, where it joins the last-mentioned short lines, to the shoulder of the elytra; my species is quite devoid of these short lines and the marginal lines; in mine the horn is much thicker than in Dr. Kraatz's species.

I have used the older name of *Golianthinus* as a generic name, as it more clearly indicates the group to which it belongs.

Two mistakes occurred in my description: for *Golianthus* read *Golianthinus*, and in the last line of the description instead of "femora" read "tibiæ."

May 14th, 1900.

On the Skeleton of the Snout and Os caruncule of the Mammary Fœtus of Monotremes.

By Prof. J. T. Wilson, M.B., Ch.M.

For the research three specimens were utilized: one was the fœtal *Ornithorhynchus*, whose external characters were described by the writer in a previous paper before the Society; another was a

more advanced specimen of *Ornithorhynchus*; whilst the third was an *Echidna* of about the same stage as the earlier of Professor W. N. Parker's specimens. All the stages were more advanced than those of *Echidna* lately investigated by Seydel. Wax-plate reconstructions of the anterior snout region were exhibited, together with serial photographs of the younger *Ornithorhynchus*.

The following features are revealed and illustrated by the models:—(1) The complete continuity of the nasal floor cartilage and the extensive marginal cartilage of the upper lip, which in the adult are separated by the premaxillæ. (2) As a result of this continuity the premaxillæ arise each as two entirely distinct bony splints on the dorsal and ventral surfaces of the cartilaginous plate aforesaid. (3) The great forward expansion of the so-called rostral cartilage of the *Ornithorhynchus* is seen to be due to the forward growth of two bilateral alar expansions of the same cartilage, which tend to meet in front after enclosing a deep notch corresponding to the hiatus described by Broom in the rostral cartilage of the adult. (4) The ventral lamellæ of the premaxillæ are provided with true palatine processes directed backwards paramesially. In the older of the two stages of *Ornithorhynchus* there exists, quite independently of the palatine process, and separated from it by a considerable interval, a separate ossification for the dumbbell-shaped bone, which is thus proved to be a perfectly distinct element—a true anterior vomer. (5) Anteriorly, the ventral premaxillary splints turn up dorsally in front of the anterior extremity of the snout in both *Ornithorhynchus* specimens, in the form of rather attenuated trabeculæ, lodged in the notch between the alar expansions of the rostral cartilage. Above this plane they fuse and are continued dorsally into a remarkable osseous mass which forms a definite skeletal foundation for the caruncle, and may therefore be named the os caruncule. This is at its maximum development in the younger stage of *Ornithorhynchus*, and is undergoing resorption in the older; whilst in the *Echidna* model it is only represented by a small nodule of bone which has lost all connexion with the premaxillæ. From Seydel's figures of earlier stages it is evident that the *Echidna* condition is originally identical with that of *Ornithorhynchus*, though it would appear to exist in a less exaggerated form. (6) The cartilaginous septum of both Monotremes exhibits an oval "internasal fenestra" immediately behind its anterior termination at the prerostral notch. A similar fenestra, according to W. K. Parker, is "a common feature in low Eutheria."—*Linn. Soc. of New South Wales, Abstract of Proceedings*, March 28, 1900, pp. iii–iv.